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United States Department of Agriculture, BUREAU OF PLANT INDUSTRY, OFFICE OF POMOLOGICAL COLLECTIONS.

INSTRUCTIONS REGARDING THE PRESERVATION OF FRUITS IN ANTISEPTIC FLUIDS.¹

GENERAL DIRECTIONS.

Select the finest specimens of the fruit, both as to form and size. Handle them carefully to avoid all bruising, and place them in bottles, arranging the specimens so as to show them to the best advantage. Fill each bottle to the neck with fruit, then pour on the fluid recommended, filling the bottles to within one-half of an inch of the stopper, so as to entirely cover the fruit; then place the stopper in the bottle and run a little melted beeswax or paraffine over the joint to make it air-tight. Tie the stopper down with a piece of strong cotton, and attach to each bottle a label containing the following particulars: Name of the variety of fruit, name and address of the grower, with the State in which the person resides. Write also in each case in one corner of the label the letter suggested to indicate the fluid which has been used. Wrap the bottles in paper to exclude the light and preserve in a cellar or other cool place until required for shipment. Strawberries and raspberries should be cut from the plants or bushes with a pair of scissors, leaving a short piece of stem attached to each.

FLUID NO. 1.

Formalin (formaldehyde), 1 pound (16 ounces); water, 44 pounds; alcohol, 5 pints. Allow the mixture to stand, and should there be any sediment pour off the clear liquor and filter the remainder through filtering paper. This 2 per cent solution of formalin, or formaldehyde, has been found very useful for preserving strawberries, so as to give them a natural appearance.

In each case where this fluid is used mark *F* on one corner of the label.

FLUID NO. 2.

A solution of boric acid in the proportion of 2 per cent. Dissolve 1 pound of boric (boracic) acid in 45 pounds of water, agitate until dissolved, then add 5 pints of alcohol. If the fluid is not clear allow it to stand and settle, when the clear upper portion may be poured off and the remainder filtered.

In each case where this fluid is used mark *B* on one corner of the label.

FLUID NO. 3.

A solution of zinc chlorid in the proportion of 3 per cent. Dissolve one-half pound of zinc chlorid in 15 pounds of water, agitate until dissolved, then add 1 $\frac{2}{3}$ pints of alcohol. Allow the mixture to stand until settled; then pour off the clear fluid and filter the remainder.

In each case where this fluid is used mark *Z* on one corner of the label.

FLUID NO. 4.

Sulphurous acid 1 pint, water 8 pints, alcohol 1 pint. Allow the mixture to stand, and should there be any sediment pour off the clear liquor and filter the remainder.

In each case where this fluid is used mark *S* on the corner of the label.

List of Fruits with the Names of the Preservatives to be Used in Each Case.

Where two fluids are named either may be used, but the first named is preferred.

Strawberries.—Solution No. 1, formalin.

Raspberries, Red.—No. 2, boric acid; No. 1, formalin.

“ White.—No. 4, sulphurous acid; No. 3, zinc chlorid.

“ Black.—No. 2, boric acid.

Blackberries.—No. 2, boric acid; No. 1, formalin.

Cherries, Red or Black.—No. 1, formalin; No. 2, boric acid.

“ White.—No. 4, sulphurous acid.

Currants, Red.—No. 1, formalin; No. 2, boric acid.

“ White.—No. 4, sulphurous acid; No. 3, zinc chlorid.

“ Black.—No. 2, boric acid.

Gooseberries.—No. 1, formalin; No. 2, boric acid.

Apples, Green and Russet.—No. 3, zinc chlorid.

“ more or less Red.—No. 2, boric acid.

“ White or Yellow.—No. 4, sulphurous acid.

Pears, Russet.—No. 3, zinc chlorid.

“ Green or Yellow.—No. 4, sulphurous acid.

Plums, dark-colored varieties.—No. 1, formalin; No. 2, boric acid.

“ Green or Yellow.—No. 4, sulphurous acid.

Peaches, Apricots, Nectarines, or Quinces.—No. 4, sulphurous acid; No. 3, zinc chlorid.

Grapes, Red or Black.—No. 1, formalin; No. 2, boric acid.

“ Green or Yellow.—No. 4, sulphurous acid.

¹Credit for the formulæ here presented is due Dr. Wm. Saunders, Director of Experiment Station, Ottawa, Canada.

